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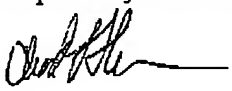
PRE-APPEAL BRIEF REQUEST FOR REVIEW (filed with the Notice of Appeal)	Docket Number 042933/299157
Application Number 10/062,622	Filed January 31, 2002
First Named Inventor Jyri Sintonen	
Art Unit 2631	Examiner Torres, Juan A.

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

Respectfully submitted,



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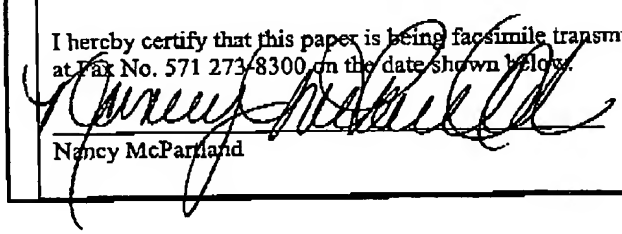

Nancy McPartland

January 30, 2006
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Attachment
Reasons for Requesting Pre-Appeal Brief Request For Review

I. Claims 9-11 are not anticipated by Moriyama

Claims 9-11, rejected solely under § 102(e) as being anticipated by Moriyama (U.S. Patent No. 6,314,144) are directed to a method for adjusting the headroom for a received signal in a radio receiver.

Independent claim 9 recites, *inter alia*, digitally filtering the digital signal at a first interference attenuation factor to produce a first filter output proportional to the magnitude of the interference signal when the interference signal is greater in magnitude than the target signal. In other words, when the magnitude of the interference signal is greater than that of the target signal, the first filter output is proportional to the magnitude of the interference signal.

The final Office Action and Advisory Action each allege that the above-recited feature is disclosed at col. 2, lines 26-37 and col. 6, lines 37-48 of Moriyama. This analysis is respectfully traversed. Col. 6, lines 37-48 of Moriyama discloses only that the interfering wave is removed by digital filters (12-1 and 12-2) (col. 6, lines 34-36) and that the AGC portion detects an electric power level of the **desired wave** to perform AGC control, and not a power level of an **interference signal** as claimed in the claimed invention. Furthermore, col. 2, lines 26-37, discloses that in prior art systems, as the interfering wave increases in magnitude, AGC control is desensitized thereby restraining the gain of the desired wave. The cited passage merely indicates that when the interfering wave is large relative to the desired wave, desensitization occurs. The statement in the cited passage that "the AGC control system is ruled by the interfering wave" simply expresses the mechanism by which the desensitization occurs and does not suggest producing a filter output proportional to the interfering wave.

The mechanism of desensitization is clearly shown by FIGS 25A and 25B, which the Advisory Action incorrectly alleges "shows very clear that the output is proportional to the magnitude of the interference signal when the interference signal is greater in magnitude than the target signal." The Advisory Action has incorrectly interpreted FIGS. 25A and 25B. FIGS. 25A and 25B do not show, nor does any part of Moriyama teach or suggest, that if the interference signal is greater in magnitude than the target signal, then an output of the first digital filter is produced to be proportional to the magnitude of the interference signal. To the contrary, FIGS. 25A and 25B show quite simply, and as expected, that the output electric field of the IF Filter

(101) of FIG. 23 increases as the input electric field to the IF Filter (101) increases. Thus, as shown in FIG. 25A, if the input electric field is increased and the interfering wave is 60 dB higher than the desired wave, the 60 dB difference will be maintained throughout the range of output electric fields. FIGS. 25A and 25B do not show, nor does Moriyama describe these FIGS. as showing, that the desired wave is an output that is driven by the interfering wave, i.e., made proportional to the interfering wave. Rather, as shown in FIG. 25B, if the IF Filter (101) is effective with AGC control at removing 20 dB of the interfering wave, the AGC control is ruled by the interfering wave leading to precisely the desensitization that is problematic and described in the background section of the present application. In other words, FIGS. 25A and 25B show the result of increasing the gain of the RF amplifier (32), i.e., that the magnitude of both the desired wave and the interfering wave increases. FIGS. 25A and 25B do not show, as suggested by the Advisory Action, that the gain of the RF amplifier (32) is increased proportional to the interfering wave when the interfering wave is greater than the desired wave. There is no causal relationship between the magnitude of the interfering wave relative to the desired wave and the level of amplification as suggested in the claimed invention.

Accordingly, there is no mention in either of the cited passages of Moriyama of producing a filter output that is proportional to the interfering wave when the interfering wave is larger than the desired wave. Thus, the cited passages fail to teach or suggest a first filter output proportional to the magnitude of the interference signal when the interference signal is greater in magnitude than the target signal as claimed in the claimed invention.

Furthermore, the remainder of Moriyama also fails to teach or suggest such feature. Moriyama is directed to a digital wireless receiving apparatus that performs AGC control. The apparatus of Moriyama includes an amplifier, an ADC and at least two digital filters, in which an output of one of the filters controls the amplifier (see for example, Figure 3). Moriyama discloses ten embodiments in which various methods of AGC control are proposed. Embodiments 1, 2, 4, 5, and 7, corresponding to Figures 3, 5, 11, 13, 17 and 20, respectively, each propose AGC control responsive to a desired wave (col. 2, lines 44-45 and 59-61, col. 8, lines 6-7 and 11-14 and col. 8, line 66 to col. 9, line 2). Embodiment 8, corresponding to Figure 19, discloses another method of AGC control unrelated to an interference wave (col. 9, lines 24-29). The remaining four methods of AGC control disclosed by Moriyama involve measurement of the interference wave, but fail to teach or suggest a first filter output proportional to the

magnitude of the interference signal when the interference signal is greater in magnitude than the target signal as claimed in independent claim 9. Specifically, embodiment 3, corresponding to Figure 6, discloses measurement of the interference wave for AGC control responsive to a ratio between the interference and desired waves (col. 7, lines 46-49). Embodiment 9, corresponding to Figure 19, discloses measurement of the interference wave to increase a filter tap number as the interference wave increases (col. 9, lines 37-47). Embodiments 6 and 10, corresponding to Figures 15 and 20, respectively, disclose measurement of the interference wave, however, amplification decreases as the magnitude of the interference wave increases (col. 8, lines 46-51 and col. 9, lines 48-61). This is the opposite effect of that claimed in independent claim 9 of the claimed invention. Thus, although the interference wave is measured in four embodiments of Moriyama, filter output is not proportional to the interference wave's magnitude when the interference signal is greater than the desired signal as claimed in independent claim 9. Accordingly, none of the embodiments of Moriyama teach or suggest a first filter output proportional to the magnitude of the interference signal when the interference signal is greater in magnitude than the target signal as claimed in independent claim 9.

Additionally, claim 9 recites, *inter alia*, adjusting the amplification level at which the received signal is amplified based on the first digital filter output such that the difference between the maximum possible digital signal and the amplified signal is decreased when the interference signal is greater than the target signal and thereby to cause the amplification level to be proportional to the magnitude of the interference signal. In other words, the amplification of the received signal is adjusted to decrease the difference between the maximum possible digital signal and the amplified signal, thereby causing the amplification level to be proportional to the magnitude of the interference signal, which adjusts the headroom.

The final Office Action cites figure 3 block 19 and column 6, lines 44-48 as meeting the above claimed feature. However, neither the cited passage, in particular, nor all of Moriyama, in general, teaches or suggests such a feature. The cited passage states only that the AGC portion (13) detects an electric power level of the desired wave from an output signal of the digital filter (12-3) and that this detected information is sent to the AGC controller (19) to perform the AGC control. In other words, the cited passage discloses that an amplification level is adjusted based on the power level of the desired wave in the output signal of the digital filter. There is no teaching or suggestion in the cited passage, or any part of Moriyama, that the amplification of the

received signal is adjusted to decrease the difference between the maximum possible digital signal and the amplified signal, thereby causing the amplification level to be proportional to the magnitude of the interference signal as claimed in independent claim 9. To the contrary, if the amplification level disclosed by the cited passage of Moriyama is proportional in magnitude to any signal, it would clearly be proportional to the desired wave. Furthermore, the remainder of Moriyama also fails to teach or suggest the claimed feature of adjusting the amplification level at which the received signal is amplified based on the first digital filter output such that the difference between the maximum possible digital signal and the amplified signal is decreased when the interference signal is greater than the target signal and thereby to cause the amplification level to be proportional to the magnitude of the interference signal, as summarized above.

Thus, independent claim 9 is neither anticipated nor rendered obvious in view of Moriyama. Claims 10 and 11 depend directly from independent claim 9, and thus include all the recitations of independent claim 9. Therefore, dependent claims 10 and 11 are patentable for at least the reasons given above for independent claim 9.

Accordingly, for all the reasons stated above, Applicant respectfully submits that the rejections of claims 9-11 under 35 U.S.C. §102(e) should be reversed.

II. Claims 1-8 and 12-20 are not obvious in view of the cited references

Claims 1, 2, 4, 5, 7, 8, 12, 14-16 and 19-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Moriyama in view of Menkoff (U.S. Patent No. 6,822,692). Claims 6, 17 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Moriyama and Menkoff in view of Linder (U.S. Patent No. 5,990,815).

Independent claims 1 and 12 recite substantially similar subject matter to that of independent claim 9 with respect to a first filter output proportional to the magnitude of the interference signal when the interference signal is greater in magnitude than the target signal as described above.

As stated above, Moriyama fails to teach or suggest a first filter output proportional to the magnitude of the interference signal when the interference signal is greater in magnitude than the target signal as claimed in independent claims 1 and 12. Menkoff is directed to a digital filter having series connected filter components. Linder is directed to a monolithically integrated dither circuit. Both Menkoff and Linder fail to teach or suggest a first filter output proportional

to the magnitude of the interference signal when the interference signal is greater in magnitude than the target signal as claimed in independent claims 1 and 12, and are not cited as such.

Since Moriyama, Menkoff and Linder each fail individually to teach or suggest a first filter output proportional to the magnitude of the interference signal when the interference signal is greater in magnitude than the target signal as claimed in independent claims 1 and 12, any combination of the cited references likewise fails to render independent claims 1 and 12 obvious for at least the same reasons described above. Thus, independent claims 1 and 12 are patentable over the cited references. Claims 2, 4-8, 13 and 15-20 depend either directly or indirectly from respective ones of the independent claims 1 and 12, and thus include all the recitations of their respective independent claims. Therefore, dependent claims 2, 4-8, 13 and 15-20 are patentable for at least those reasons given above for independent claims 1 and 12.

Accordingly, for all the reasons stated above, Applicant respectfully requests that the rejections of claims 1, 2, 4-8, 12, 13 and 15-20 be reversed.